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Financial Profile of Cooperatives Handling Grain:

First-Handlers, \$15 Million Sales or Larger



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Francis P. Yager and David E. Cummins, Agricultural Economists
Cooperative Marketing and Purchasing Division
Agricultural Cooperative Service
U.S. Department of Agriculture

Abstract

This report presents basic information on cooperatives that are first-handlers of grain. Line operations of regional grain cooperatives were excluded. Qualifying associations had annual sales in 1983 of at least \$15 million, with grain sales accounting for more than half of total value of sales. Most associations also handle farm supplies and provide related services.

Key words: cooperative, financial, grain, elevators

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Preface

Data shown in this report are benchmark and are not comparable with other Agricultural Cooperative Service (ACS) data on the financial structure of farmer cooperatives. The financial information in this report is based largely on balance sheet and operating statement data collected as part of an ACS survey of 2,275 grain marketing cooperatives. Other types of information such as membership, volume of grain handled, and storage capacity were obtained from first-handler cooperatives. All information in this report is for 155 first-handler associations that recorded total sales of \$15 million or more in 1983, of which more than 50 percent was from sales of grain. The 155 constitute about 80 percent of their total population. Most of these cooperatives were diversified, also handling farm supplies and providing many related services.

This report examines the operating and financial data for these first-handlers related to several size factors—grain storage capacity, total sales, total assets, and net savings. In addition, the associations that handled predominantly corn/soybeans, wheat/sorghum, and wheat/barley were summarized separately and compared. Regardless of how they are grouped, the associations are not homogeneous. Even those comparable in terms of total dollar sales, for example, will vary considerably as to proportion of grain sales. No attempt was made to determine what influence asset age and accumulated depreciation had on asset value.

All information included is based on condensed balance sheets and operating statements. Because of variations in accounting and auditing practices and terminology, it was necessary to adjust financial reports to ensure data comparability.

The specific information presented in this report should help cooperative management and boards make sound business decisions as they confront new problems and the need for increasing amounts of capital for improved or new facilities and/or services. Such information can be used as guidelines for success and pitfalls to avoid.

This is the first publication in a planned three-part series. The others will cover grain-handling cooperatives that had dollar sales of \$1 million to \$4.9 million and \$5 million to \$14.9 million.

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Glossary

Current assets - The dollar value of assets that can be readily converted into cash without interfering with the normal business operations.

Investments - The dollar value of investments in other business organizations, mostly cooperative associations, and deferred patronage.

Fixed assets - Dollar value of property, structures and equipment (less depreciation), land, construction in progress, and capital leases.

Other assets - All other assets such as bond cost amortization, and deferred and prepaid expenses.

Current liabilities - The dollar value of liabilities to be paid, including that portion of long-term debt due in a year or less and patronage refunds payable.

Long-term liabilities - The dollar value of all debts with a maturity of more than 1 year, such as debentures, notes, industrial revenue bonds, and mortgage notes.

Net worth or equity capital - The dollar value of owners' equity listed in the equity sections—includes common/capital/preferred stock, allocated/unallocated earnings, per-unit retains, and certificates of indebtedness and membership.

Gross margins - The dollar value of the sales of grain and farm supplies less cost of goods sold.

Other operating income - The dollar value of storage and handling fees, service revenue, load-out fees, cleaning, mixing, commission, drying, finance charges, etc.

Nonoperating income - The dollar value of net interest income/expenses, gain or loss from the sale of assets, dividends on stock, and patronage refunds from other cooperatives.

Gross income - The dollar value of gross margins plus other operating income and nonoperating income.

Total expenses - The dollar value of labor, administrative, and other general expenses, such as depreciation, repairs, utilities, and property taxes.

Labor expense - The dollar value of salaries and wages and fringe benefits, including social security, workers' compensation, unemployment, retirement, hospitalization, bonuses, and other expenses directly related to labor.

Net savings (losses) - The dollar value of gross income minus total expenses before income taxes.

Allocation of net savings - The dollar value of the net savings (1) paid in cash as patronage refunds, (2) paid in cash as dividends or interest on stock, (3) allocated to patrons on the book, (4) retained as equity/unallocated retained earnings, (5) allocated to an educational fund, and (6) set aside for income taxes (Federal and State).

CONTENTS

	Page
HIGHLIGHTS AND CONCLUSIONS.....	vi
FIRST-HANDLER CHARACTERISTICS.....	1
Storage Capacity.....	1
Grain Volume Marketed and Sales.....	1
Accessibility of Railroads.....	1
FINANCIAL STATEMENTS.....	1
Income Statement.....	1
Balance Sheet.....	3
Equity Capital.....	5
Net Savings.....	6
FINANCIAL STATEMENT ANALYSIS.....	10
HOW DOES YOUR ASSOCIATION COMPARE?.....	12
Size Criteria.....	12
Type of Grains Handled.....	12
APPENDIX TABLES.....	14

Highlights and Conclusions

This report presents information on the physical and financial structure of 155 first-handlers-of-grain associations with sales of \$15 million or more in 1983. These cooperatives constitute about 80 percent of their nationwide population. Analysis of records for these associations revealed the following:

- Total membership ranged from 365 to 8,300, and averaged 1,946 per association.
- Grain producers accounted for 69 percent of total membership.
- Total grain storage capacity per association was 3,965,919 bushels.
- The grain turnover rate for 1983 was 1.54 times.
- Total grain marketed per cooperative averaged 6,089,683 bushels.
- Corn was the leading grain handled, followed by soybeans and wheat.
- Eighty-four percent of the associations' headquarters were located on a railroad.
- Grain and farm supplies sales averaged \$27,575,664 per association. Grain sales accounted for nearly 78 percent of the total sales.
- Labor and related expenses comprised 40 percent of total operating expenses.
- Total value of assets amounted to nearly \$1.5 billion, or \$9,484,222 per association.
- Current assets accounted for 47 percent of total assets; fixed assets, 35 percent; investments and other miscellaneous items, the remaining 18 percent.
- Equity capital of these first-handlers totaled \$717.4 million, averaged \$4,628,423 per association, and was equivalent to 49 percent of total assets.
- Current liabilities were equivalent to 36 percent of total assets, and long-term liabilities were 15 percent. The current ratio was 1.29 to 1.
- Aggregate net savings before income taxes and allocations amounted to \$68.1 million, or \$439,207 per association. Net savings for those associations with savings for the year averaged \$553,291; those with net operating losses averaged \$486,887 each.
- Wheat-sorghum and wheat-barley associations each had more than double the net savings of corn-soybean associations.
- Patronage from other cooperative associations amounted to 13 percent of net savings.
- Patronage allocations to user-members accounted for nearly 58 percent of net earnings, of which 39 percent was paid in cash.
- Substantial change has taken place over time in the financial structure of cooperatives that are first-handlers of grain — How does yours compare with others for 1983? See appendix tables 1-24.

Grain-handling cooperatives in the late 1970's and early 1980's have been characterized by accelerated growth, diversification, consolidation, modernization, and retrenchment, all of which have important financial implications.

If grain-handling cooperatives are to adjust successfully to changing economic conditions, they must first command the necessary capital. Grain-handling cooperatives finance their operations through standard procedures used by other businesses in addition to those unique to cooperatives, such as

revolving funds. Financing is through producer-members, local banks, Banks for Cooperatives, and other financial institutions and, in some cases, the investing public.

In the past, many of the grain-handling cooperatives were small associations struggling to better the economic conditions of farmers through cooperative action. They furnished much of the capital needed to operate their associations themselves. Over the years, many have continued to follow this and other traditional and sometimes restrictive patterns of financing their operations. For the purpose of expanding their operations, however, grain-handling cooperatives found that they could not do so on internal, or equity financing. To meet their increasing financial needs and realize economies of scale, many found it necessary to borrow capital.

New approaches are needed today if cooperatives are to continue to grow and be economically sound. Adequate financing and sound financial management are critical. Financial management is probably the most important and complex managerial activity in the operation of grain-handling cooperatives today. Determining capital needs and establishing priorities are critical areas in decisionmaking. Financial planning by grain-handling cooperatives should include (1) the generation of more permanent capital to replace or supplement revolving types of capital, (2) equitable membership participation in financing, and (3) maximizing financial leverage if used.

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FIRST-HANDLER CHARACTERISTICS

This study presents available basic information on the financial structure and related operating characteristics of cooperatives that are first-handlers of grain (referred to hereafter as first-handlers or grain cooperatives) with sales of \$15 million or more in 1983, of which more than 50 percent was from sales of grain. Most of these cooperatives were diversified, also handling farm supplies and providing many related services.

The 155 grain cooperatives in this study averaged 1,946 members per association in 1983. Individual association membership ranged from 365 to nearly 8,300. Grain producers accounted for 69 percent of total membership (table 1). Eighteen percent of the grain cooperative associations had only grain producers as members.

Key terms used in this report are defined in the glossary on the preceding pages.

Storage Capacity

The grain cooperatives reported an estimated 614,717,504 bushels of total grain storage capacity. This represented nearly 8 percent of total U.S. off-farm storage capacity in 1983. Grain storage capacity ranged from 100,000 to more than 27 million bushels and averaged 3,965,919 bushels per association, or 947,176 bushels per location (table 2). These local cooperative associations collectively had an annual average turnover rate (grain marketed volume/storage capacity) of 1.54 (table 2). The rate declined significantly with an increase in grain storage capacity per association. A high-storage utilization rate is important to maintaining a profitable business. A low turnover rate generally requires a higher per-bushel margin to cover the cost of operations.

Grain Volume Marketed and Sales

The local grain cooperative associations studied marketed nearly 944 million bushels of grain during the 1982 crop year.

Individual association volumes marketed ranged from 1.9 to 24.4 million bushels and averaged 6,089,683 bushels (table 2).

Corn was marketed by 96 percent of the associations and accounted for 52 percent of total grain volume marketed (table 3). Soybeans was second with 20 percent, followed by wheat with 19 percent (table 3).

Accessibility of Railroads

The recent abandonment of many of the rail lines that have been used by elevators for years to move grain to market has eliminated this shipping alternative for a substantial number of first-handlers. Although 16 percent of the associations' headquarters were not located on a rail line, they often had access to rail lines at one or more of their branch locations. Railroads serving the headquarters of these cooperative associations in 1983 are shown in table 4.

FINANCIAL STATEMENTS

The operating or income statement summarizes a business operation for a specified time period, showing the sources of income, the nature of expenses, and the net savings or loss from operations. The balance sheet is a summary record of transactions during a period of time that indicates the organization's financial health.

Income Statement

Sales of grain and farm supplies totaled nearly \$4.3 billion, or \$27,575,664 per association (table 5). Grain as a proportion of total sales varied from 72.8 to 84.1 percent and averaged 77.6 percent for all groups. The largest associations—the 9 percent with total 1983 sales of at least \$50 million—accounted for nearly 22 percent of total dollar sales, 84 percent of it grain. The smallest associations, 16 percent of the total, accounted for less than 10 percent of total sales.

Gross income of first-handlers averaged \$2,731,747 per association in 1983. Income was derived from margins on

Table 1—Membership composition, by total membership, 1983

Total membership	Distribution		Membership	
	First-handlers	Total membership	Total	Grain producers
<i>Number</i>	<i>----- Percent -----</i>		<i>Number</i>	<i>Percent</i>
Less than 500	3.2	0.7	432	88.6
500-999	25.8	10.0	759	81.3
1,000-1,499	20.6	12.9	1,213	76.3
1,500-1,999	15.5	13.2	1,658	69.3
2,000-2,499	11.0	12.4	2,202	67.4
2,500-4,499	14.2	23.1	3,162	65.2
4,500 or more	9.7	27.7	5,571	64.8
All associations	100.0	100.0	1,946	69.1

Table 2—Grain storage capacity, marketed, and sales, by grain storage capacity, 1983

Storage capacity	Elevator storage capacity			Locations per association	Grain marketed per association	Turn-over rate	Proportion grain of total sales
	Distribution	Per association	Per location				
<i>Million bushels</i>	<i>Percent</i>	<i>---- Bushels ----</i>		<i>Number</i>	<i>Bushels</i>	<i>Times</i>	<i>Percent</i>
Less than 1.5	4.3	1,025,863	467,938	2.2	4,091,846	3.99	75.6
1.5-2.4	9.4	2,000,876	644,727	3.1	4,725,172	2.36	72.7
2.5-3.4	16.9	2,879,465	917,352	3.1	4,830,279	1.68	75.5
3.5-4.4	15.9	3,902,130	903,271	4.3	6,129,395	1.57	81.7
4.5-6.4	16.1	5,493,224	1,136,529	4.8	7,172,071	1.31	75.2
6.5-9.4	13.6	7,590,331	1,043,671	7.3	10,444,363	1.38	79.2
9.5 or more	23.8	14,643,400	1,284,509	11.4	12,937,273	.88	85.7
All associations	100.0	3,965,919	947,176	4.2	6,089,683	1.54	77.6

Table 3—Grain marketed, total and per association, by type of grain, 1983

Type of grain	Grain marketed		Proportion of associations marketing	Distribution of marketings
	Total	Per association		
	----- Bushels -----		----- -Percent - -----	
Wheat	182,193,546	1,175,442	79.4	19
Corn	486,480,790	3,138,586	95.5	52
Soybeans	187,638,612	1,210,572	87.7	20
Grain sorghum	33,116,443	213,654	24.5	3
Barley	27,141,629	175,107	20.6	3
Other ¹	27,329,867	176,322	84.5	3
Total	943,900,887	6,089,683	100.0	100

1-Includes sunflowers, flaxseed, rye, and oats.

Table 4—Railroads serving association headquarters, 1983

Railroad	Locations served	Distribution
	Number	Percent
Burlington Northern	25	16
Chicago and Northwestern	24	15
Santa Fe ¹	12	8
Milwaukee ²	11	7
Illinois Central Gulf	9	6
Norfolk Southern ³	9	6
Union Pacific	7	5
Conrail ⁴	6	4
Other rail lines	27	17
Not on railroad	25	16
All associations	155	100

1-Includes Atchison, Topeka, and Santa Fe.

2-Bankruptcy proceedings.

3-Includes Norfolk and Western.

4-In process of being sold.

Table 6—Income and expenses per association and allocation of net savings, 1983

Item	Unit	
	Dollars	Percent
Income:		
Operating:		
Margins on sales	1,733,701	60
Other (service)	1,104,066	38
	2,837,767	
Nonoperating:		
Patronage refunds	57,506	2
Other	(163,526)	—
	(106,020)	
Gross income ¹	2,731,747	100
Expenses:		
Labor	917,943	40
All other	1,374,597	60
Total	2,292,540	100
Net savings before taxes ²	439,207	
Distribution of savings:		
Paid in cash	106,353	24
Allocated	179,653	41
Unallocated	153,201	35
Total	439,207	100

1-Margins on sales plus other operating income and all nonoperating income.

2-Savings before income taxes and allocations.

Table 5—Total and grain sales, by total sales, 1983

Total sales	Distribution of associations	Total sales		Grain sales	
		Per association	Distribution	Per association	Proportion of total sales
Million dollars	Percent	Dollars	Percent	Dollars	Percent
15.0-17.4	16.1	16,103,977	9.4	11,905,913	73.9
17.5-22.4	36.1	19,449,183	25.5	14,792,269	76.1
22.5-27.4	16.8	25,001,577	15.2	19,438,763	77.8
27.5-32.4	9.7	30,268,522	10.6	23,227,259	76.7
32.5-37.4	6.5	34,188,814	8.0	25,948,792	75.9
37.5-49.9	5.8	44,377,642	9.4	32,306,023	72.8
50.0 or more	9.0	66,937,032	21.9	56,310,993	84.1
All associations	100.0	27,575,664	100.0	21,409,211	77.6

sales, service income, patronage refunds, and other nonoperating income. Sales to generate this income came from grain merchandising and farm supply sales. Margins on these sales accounted for 60 percent of gross income and other operating (service) income 38 percent (table 6).

Operating expenses of the first-handlers amounted to \$2,292,540 per association (table 7). Labor comprised 40 percent of the total. Net savings before taxes ranged from a \$1.6 million loss to \$3.6 million, and averaged \$439,207 per association (table 8). Patronage refunds from other cooperatives, which averaged \$57,506 per association, accounted for 13 percent of net savings.

Balance Sheet

Total value of assets of all first-handlers in 1983 was nearly \$1.5 billion. Cooperative association assets ranged from less than \$1.5 million to more than \$38 million and averaged about \$9.5 million per association (table 9). Half of the associations studied had total assets of \$5.0-\$9.9 million.

The net book value of fixed assets averaged nearly \$3.3 million (table 10). Current assets were 47 percent of total assets; fixed assets, 35 percent; investments, mostly in other cooperatives, 18 percent; and other assets, less than 1 percent. Total liabilities (current and long-term) and member equity

Table 7—Gross income, total and labor expenses, and net savings per association, by total sales, 1983

Total sales	Gross income	Total expenses	Labor expense		All other expenses		Net savings ¹	Distribution of savings
			Per association	Relative to total	Per association	Relative to total		
Million dollars	----- Dollars -----		Percent		Dollars	Percent	Dollars	Percent
15.0-17.4	1,666,826	1,408,032	595,046	42	812,986	58	258,794	9.5
17.5-22.4	1,972,166	1,697,870	705,377	42	992,493	58	274,296	22.6
22.5-27.4	2,433,902	2,102,915	864,987	41	1,237,928	59	330,987	12.6
27.5-32.4	3,271,660	2,808,746	1,077,610	38	1,731,136	62	462,914	10.2
32.5-37.4	3,430,748	2,512,070	968,854	39	1,543,216	61	918,678	13.5
37.5-49.9	4,153,662	3,391,412	1,495,692	44	1,895,720	56	762,250	10.1
50.0 or more	6,233,006	5,186,558	1,864,314	36	3,322,244	64	1,046,448	21.5
All associations	2,731,747	2,292,540	917,943	40	1,374,597	60	439,207	100.0

1-Savings before income taxes and allocations.

Table 8—Net savings and patronage refunds received per association, by total sales, 1983

Total sales	Net savings ¹	Patronage from other cooperatives	Patronage income relative to net savings
<i>Million dollars</i>	<i>-----Dollars-----</i>		<i>Percent</i>
15.0-17.4	258,794	35,470	13.7
17.5-22.4	274,296	44,209	16.1
22.5-27.4	330,987	54,044	16.3
27.5-32.4	462,914	47,937	10.4
32.5-37.4	918,678	66,816	7.3
37.5-49.9	762,250	84,111	11.0
50.0 or more	1,046,448	142,973	13.7
All associations	439,207	57,506	13.1

1-Savings before income taxes and allocations.

Table 9—Selected balance sheet data, by total assets, 1983

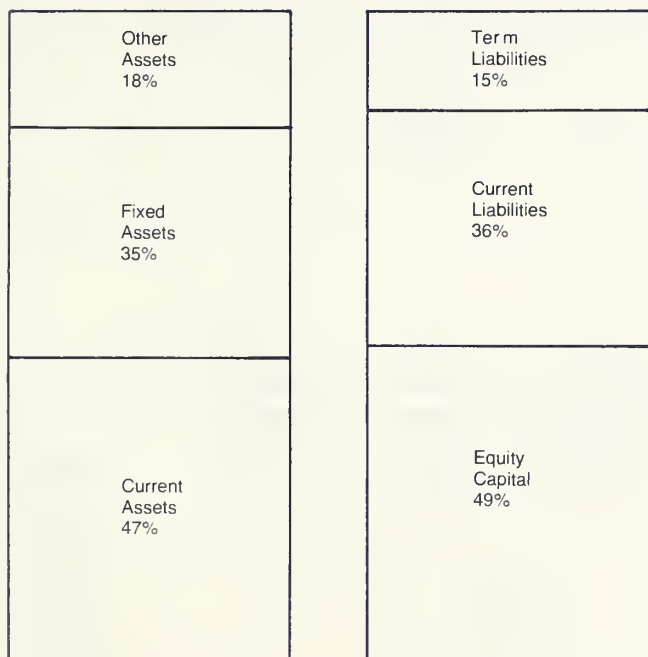
Total assets	Total assets per association	Proportion of total assets represented by —						
		Current assets	Investments	Net fixed assets	Other assets	Current liabilities	Long-term liabilities	Member equity
<i>Million dollars</i>	<i>Dollars</i>	<i>----- Percent -----</i>						
Less than 5.0	3,789,366	40	20	40	(¹)	25	15	60
5.0-9.9	7,132,133	47	20	33	(¹)	35	13	52
10.0-14.9	11,588,843	47	18	34	1	39	14	47
15.0-24.9	19,208,388	46	15	39	(¹)	35	16	49
25.0 or more	32,120,448	51	15	34	(¹)	43	17	40
All associations	9,484,222	47	18	35	(¹)	36	15	49

1-Less than 0.05 percent.

Table 10—Balance sheet averages per association, 1983

Item	Unit	
	Dollars	Percent
Assets:		
Current assets	4,472,099	47.1
Investments	1,676,632	17.7
Fixed	3,289,953	34.7
Other	45,538	.5
Total	9,484,222	100.0
Liabilities and member equity:		
Current liabilities	3,463,520	36.5
Long-term debt	1,392,279	14.7
Equity	4,628,423	48.8
Total	9,484,222	100.0

Figure 1—Condensed balance sheet data for first handlers of grain. (average \$9.4 million per association)



made up 51 and 49 percent, respectively, of their sum (table 10 and fig. 1).

Equity Capital Equity capital provides the element of ownership and control that any cooperative must have to operate and grow. Equity capital also serves as a buffer for creditors to absorb operating losses as well as declines in asset values.

Total equity capital of the first-handlers at the close of 1983 amounted to more than \$717 million, an average of \$4.6 million per association, or \$2,378 per member (table 11).

The types of equity capital reported by the grain cooperatives at the close of 1983 and their relative importance are shown in table 11 and figure 2.

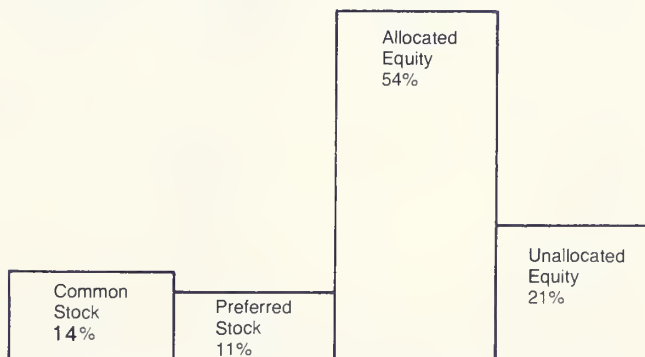
Equity is provided by patrons and others in several ways:

- The purchase of capital stock or other paper
- The investing of a portion of net savings (patronage refunds)
- The contribution of capital through deductions from sales proceeds in the form of per-unit retains.

Two or all of these methods are commonly used by each cooperative.

Common stock (14 percent of total equity capital) is generally used as voting or membership stock by cooperatives. Limitations on ownership, transfer, surrender, cancellation, voting, etc., are most generally included in the articles of incorporation and often printed on the voting stock certificates. This is because ownership and control must remain with the members if an association is to qualify as a farmer cooperative under the Capper-Volstead Act and various State laws.

Figure 2—Type of Equity Capital (average \$4.6 million per association)



Equity certificates and allocated capital credits accounted for 54 percent of total equity capital; unallocated reserves accounted for 21 percent (table 11).

Aggregate net savings after taxes amounted to more than \$64 million, with nearly \$9 million received as patronage refunds from other cooperatives. Net savings after taxes averaged about \$414,842 per association, of which \$57,506 was patronage refunds from other cooperatives. The latter represented more than 13 percent of net savings before taxes (table 12).

Net Savings

Net savings figures in this report do not reflect all actual savings and value of services provided to members by the grain cooperatives. Many are buy-and-sell type cooperatives that sell at current market prices. Most grain cooperatives attempt to provide services close to actual cost so monies to be allocated at the end of the operating year are relatively small.

Grain cooperatives involved in handling grain and farm supplies may realize a net savings from one activity and incur a net loss from the other. These savings and losses are not

handled uniformly by all multifunction cooperatives as their bylaws generally differ on the matter. Because a cooperative is a single business entity with generally the same members participating in all functions, the results (net savings or net loss) for the operating year typically are reported for the total business. The data for this study were collected on that basis.

Federal income tax laws stipulate that the portion of a cooperative's net savings distributed as patronage refunds is currently deductible before figuring income taxes. At least 20 percent of total patronage refunds must be paid in cash. Their payment has long been a trademark of local first-handlers of grain.

At the close of 1983, aggregate net savings before income taxes and allocations was about \$68 million, or \$439,207 per association (table 13). Of this, \$59.1 million was operating savings and \$8.9 million was patronage refunds received from other cooperatives. Net savings per association member averaged about \$226.

Table 14 shows how first-handlers allocated net savings. Nearly 58 percent was patronage refunds, of which 39 percent was paid out as cash (fig. 3). About 6 percent was used to pay income taxes for 1983.

Table 11—Types and amounts of member equity capital, by total assets, 1983

Total assets	Member equity per association	Percentage of member equity represented by			
		Common stock	Preferred stock	Allocated equity	Unallocated equity
<i>Million dollars</i>	<i>Dollars</i>	<i>Percent</i>			
Less than 5.0	2,264,137	19	11	43	27
5.0-9.9	3,673,872	15	14	48	23
10.0-14.9	5,439,645	13	7	60	20
15.0-24.9	9,505,121	7	8	71	14
25.0 or more	12,760,140	22	10	49	19
All associations	4,628,423	14	11	54	21

Table 12—Net savings and patronage income received per association, by total assets, 1983

Total assets	Net savings ¹	Patronage from other cooperatives	Patronage income relative to net savings
<i>Million dollars</i>	<i>Dollars</i>		<i>Percent</i>
Less than 5.0	228,893	23,358	10.2
5.0-9.9	303,185	52,466	17.3
10.0-14.9	496,957	53,634	10.8
15.0-24.9	1,107,025	111,751	10.1
25.0 or more	1,424,990	177,682	12.5
All associations	439,207	57,506	13.1

¹Savings before income taxes and allocations.

Figure 3—Distribution of Net Savings

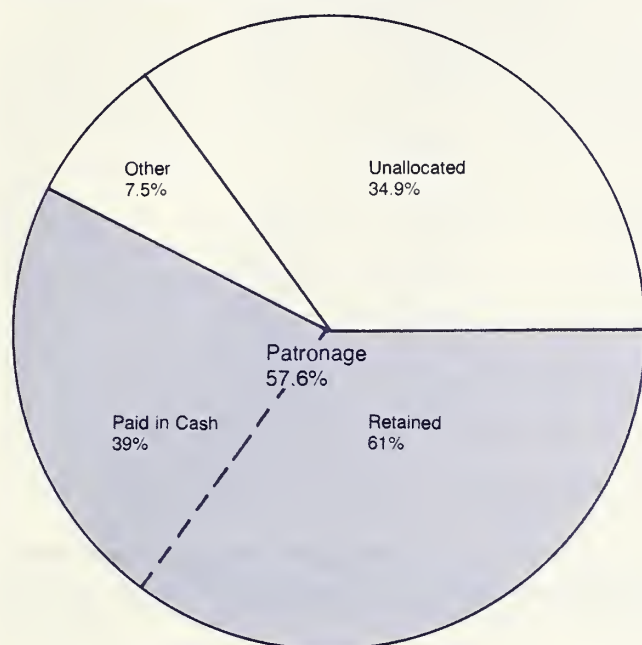


Table 15 shows the grain cooperatives' incomes and expenses by size of net savings. Table 16 shows the sources of income by size of net savings.

Separate operating statements and balance sheets were developed for both net savings and losses in 1983 (table 17). Net savings for the former group averaged \$553,291, compared with an average loss of \$486,887 for the latter group. Gross incomes for associations with net savings and those with losses averaged within \$122,000 of each other. Total expenses per association, however, were 42 percent higher for those reporting losses.

The debt picture is very different for these two groups. Total debt, including the current portion of long-term debt, averaged \$4,223,018 per cooperative for those reporting losses, compared with \$2,502,842 for those reporting net savings. Total debt exceeded member equity by 11 percent and was 42 percent of total assets for the cooperatives reporting losses, while it represented only 53 percent of member equity and was only 27 percent of total assets for those with net savings.

The current ratio for cooperatives reporting losses was 1.09 compared with 1.32 for those reporting savings. Member equity for the associations with losses was 38 percent, compared with 50 percent for those with savings. Cooperative

Table 13—Income sources, total expenses, and net savings per association, by net savings, 1983

Net savings (loss) ¹	Income source			Gross income	Total expenses	Net savings (loss) ¹	Gross income per dollar expenses
	Margins on sales	Patronage refunds received	All other				
<i>Thousand Dollars</i>				<i>Dollars</i>			
(500 or more)	1,944,856	103,315	800,948	2,849,119	3,837,661	(988,542)	0.74
(499-0)	1,614,217	78,054	772,811	2,465,082	2,600,811	(135,729)	.95
1-249	1,301,675	57,511	644,026	2,003,212	1,865,250	137,962	1.07
250-499	1,265,397	39,156	770,327	2,074,880	1,700,215	374,665	1.22
500-749	1,591,235	59,961	1,026,321	2,677,517	2,052,294	625,223	1.30
750-999	2,202,460	47,462	1,153,749	3,403,671	2,580,587	823,084	1.32
1,000 or more	3,927,341	67,054	2,023,836	6,018,231	4,200,480	1,817,751	1.43
All associations	1,733,701	57,506	940,540	2,731,747	2,292,540	439,207	1.19

1-Savings before income taxes and allocations.

Table 14—Net savings allocations, by net savings, 1983

Net savings (loss) ¹	Distribution of associa- tions	Net savings (losses) ¹	Distribution of net savings (losses)				
			Patronage			Other ²	Unallo- cated reserves
			Paid in cash	Retained	Total		
<i>Thousand dollars</i>	<i>Percent</i>	<i>Dollars</i>	<i>-----Percent-----</i>				
(500 or more)	4.5	(988,542)					
(499-0)	6.4	(135,729)					100.0
1-249	29.7	137,962	45	55	24.8	18.6	56.6
250-499	22.6	374,665	37	63	45.2	8.9	45.9
500-749	19.4	625,223	40	60	51.9	6.8	41.3
750-999	7.1	823,084	32	68	62.1	3.5	34.4
1,000 or more	10.3	1,817,751	40	60	56.2	3.8	40.0
All associations	100.0	439,207	39	61	57.6	7.5	34.9

1-Savings before income taxes and allocations.

2-Includes dividends/interest on equity capital, an educational provision, and Federal and State income taxes.

Table 15—Total sales, gross income, net savings, and expenses per association, by net savings, 1983

Net savings (loss) ¹	Total sales		Proportion gain of total sales	Gross income	Total operating income of gross income ²	Total expenses	Net savings (loss) ¹
	Per association	Distribution					
<i>Thousand dollars</i>	<i>Dollars</i>	<i>----- Percent -----</i>		<i>Dollars</i>	<i>Percent</i>	<i>----- Dollars -----</i>	
(500 or more)	36,201,236	5.9	76.2	2,849,119	116.2	3,837,661	(988,542)
(499-0)	25,343,738	5.9	68.9	2,465,082	109.2	2,600,811	(135,729)
1-249	22,410,107	24.1	75.8	2,003,212	102.7	1,865,250	137,962
250-499	22,731,995	18.6	77.7	2,074,880	104.4	1,700,215	374,665
500-749	24,969,222	17.6	79.4	2,677,517	103.2	2,052,294	625,223
750-999	36,096,607	9.3	84.8	3,403,671	103.3	2,580,587	823,084
1,000 or more	49,672,362	18.6	77.6	6,018,231	101.5	4,200,480	1,817,751
All associations	27,575,664	100.0	77.6	2,731,747	103.9	2,292,540	439,207

1-Savings before income taxes and allocations.

2-Total operating income is margins on sales plus other operating income.

Table 16—Selected sources of gross income per association, by net savings, 1983

Net savings (loss) ¹	Source of income						
	Margins on sales	Patronage refunds received	All other sources ²	Gross income	Margins on sales	Patronage refunds received	All other sources
<i>Thousand dollars</i>			<i>Dollars</i>			<i>Percent</i>	
(500 or more)	1,944,856	103,315	800,948	2,849,119	68	4	28
(499-0)	1,614,217	78,054	772,811	2,465,082	65	3	32
1-249	1,301,675	57,511	644,026	2,003,212	65	3	32
250-499	1,265,397	39,156	770,327	2,074,880	61	2	37
500-749	1,591,235	59,961	1,026,321	2,677,517	59	2	39
750-999	2,202,460	47,462	1,153,749	3,403,671	65	1	34
1,000 or more	3,927,341	67,054	2,023,836	6,018,231	65	1	34
All associations	1,733,701	57,506	940,540	2,731,747	64	2	34

1-Savings before income taxes and allocations.

2-Includes operating and nonoperating income.

Table 17—Operating statement and balance sheet data per association reporting (losses) and savings, 1983

Item	Unit	All associations	Associations reporting (losses)	Associations reporting net savings ¹
Gross income	Dollars	2,731,747	2,623,215	2,745,117
Total expenses	Dollars	2,292,540	3,110,102	2,191,826
Net savings	Dollars	439,207	(486,887)	553,291
Total sales	Dollars	27,595,664	29,814,473	27,299,869
Grain sales	Dollars	21,409,211	21,638,695	21,380,941
Share of total	Percent	77.6	72.6	78.3
Turnover rate	Times	1.54	1.64	1.52
Current assets	Dollars	4,472,099	4,569,896	4,460,051
Investments	Dollars	1,676,632	2,326,648	1,596,558
Fixed assets	Dollars	3,289,953	3,179,047	3,303,615
Other	Dollars	45,538	44,894	45,617
Total assets	Dollars	9,484,222	10,120,485	9,405,841
Current liabilities	Dollars	3,463,520	4,209,705	3,371,599
Long-term liabilities	Dollars	1,392,279	2,101,140	1,304,955
Equity	Dollars	4,628,423	3,809,640	4,729,287
Total liabilities and equity	Dollars	9,484,222	10,120,485	9,405,841
Current ratio	—	1.29	1.09	1.32
Member equity	Percent	49	38	50
Net savings/total assets	Percent	4.63	(4.81)	5.88

1-Savings before income taxes and allocations.

associations have varying policies and agreements with patrons for handling losses. Some charge members directly for their share of the loss based on member patronage during the year, while others charge losses against allocated equity of members and often against unallocated equity.

FINANCIAL STATEMENT ANALYSIS

Financial and operating ratios offer, with limitations, a means of showing relationships between items in the financial statement of a business operation and are a useful tool in helping analyze a cooperative's financial and operating relationships. These ratios can indicate but not solve problems. They are largely descriptive but can serve as guidelines for planning purposes. For ratios to aid meaningfully in formulating actions, management must understand their limitations. This involves not only the type of operation the ratio represents but also the period of time being examined. The situation is further complicated because

both items in a ratio are subject to wide variation and there are no fixed standards or hard and fast rules for evaluating or interpreting a ratio.

Financial analysis means selecting the various factors for looking at the cooperative's overall condition. Things to consider are its ability to (1) meet current obligations, (2) earn a satisfactory return on investment, (3) withstand external or internal financial problems, (4) raise capital when needed, and (5) perform efficiently.

In using ratios, management must first determine what it wants to analyze, then select the appropriate ratio(s). Ratios are susceptible to change as conditions change. They must be revised continuously. At best, ratios are approximations and their use is limited because of differences attributed to such factors as type of business (grain, farm supply), time of year closing, different accounting procedures, and utilization of financial resources. Several ratios are worthy of discussion as

Table 18—Selected overall ratios/percents, 1983

Item	Value		
	High	Average	Low
Grain turnover rate (times)	3.99	1.54	0.88
Current ratio	1.58	1.29	1.08
Equity/total assets	.60	.49	.35
Total liabilities/total assets	.65	.51	.40
Debt/equity	1.39	.58	.31
Debt/assets	.48	.28	.18
Total sales/total assets	5.19	2.91	2.30
Gross margins/total sales (percent)	9.19	6.29	4.50
Net savings/total sales (percent)	3.66	1.59	-2.73
Labor expenses/total expenses (percent)	44.10	40.00	34.20
Net savings/equity (percent)	17.40	9.49	-24.28
Net savings/total assets (percent)	9.56	4.63	-8.47

NOTE: Selected from four groupings: grain storage capacity, total assets, total sales, and net savings. See appendix tables 1-24.

Table 19—Selected balance sheet ratios, by net savings, 1983

Net savings (loss) ¹	Distribution of associations	Grain turnover rate	Current ratio	Equity	Total liabilities	Debt	Total liabilities	Debt	Total sales
				Total assets	Total assets	Equity	Equity	Assets	Total assets
Thousand dollars	Percent	Times		Ratio					
(500 or more)	4.5	1.50	1.09	0.35	0.65	1.39	1.87	0.48	3.10
(499-0)	6.4	1.84	1.08	.40	.60	.89	1.49	.36	2.80
1-249	29.7	1.99	1.20	.46	.54	.72	1.19	.33	3.18
250-499	22.6	1.79	1.34	.51	.49	.56	.98	.28	3.03
500-749	19.4	1.42	1.46	.54	.46	.48	.87	.26	2.89
750-999	7.1	1.43	1.20	.45	.55	.49	1.24	.22	2.69
1,000 or more	10.3	1.11	1.43	.55	.45	.39	.82	.21	2.61
All associations	100.0	1.54	1.29	.49	.51	.58	1.05	.28	2.91

1-Savings before income taxes and allocations.

they relate to the cooperatives in this study.

Selected group ratios (high, average, low) for the combination of four different groupings of the cooperatives studied—storage capacity, total sales, total assets, and net savings—are summarized in table 18. The complete sets of ratios are contained in appendix tables 5, 6, 11, 12, 17, 18, 23, and 24.

The *grain turnover ratio* indicates the use efficiency of the available grain elevator storage space. In this study, the grain volume handled by all associations in 1983 averaged 1.54 times storage capacity. The range for the various groups was from 0.88 to 3.99.

The *current ratio* expresses the relationship between current assets and current liabilities and serves as a general measure of liquidity, or of the cooperative's ability to meet current obligations to creditors. It shouldn't be used without analyzing the individual accounts that comprise current assets.

However, it is possible to have a favorable current ratio and not be able to meet current debt obligations because of a long accounts receivables collection period and/or slow-moving inventories. This ratio averaged 1.29 for all associations (table 18). Looking at the classifications in the four appendix tables (5, 11, 17, 23) containing current ratios, it ranged from 1.08 (table 23) to 1.58 (table 17).

Some ratios can give an indication of balance sheet strength and the claims of the members and debtors on the assets owned by the cooperative.

In this study, owners' equity for the first-handlers averaged nearly 49 percent of total assets. Owners' equity was equivalent to 92 percent of the noncurrent assets, which comprised more than 52 percent of total assets. Creditors estimated an investment of 51 percent. Depending upon the classification of the various items in the financial statement, member equity ranged from a low of 35 percent (table 19) to a

Table 20—Selected balance sheet ratios, by total assets, 1983

Total assets	Distribution of associations	Grain turnover rate	Current ratio	Equity Total assets	Total liabilities Total assets	Debt Equity	Total liabilities Equity	Debt Assets	Total sales Total assets
Million dollars	Percent	Times	----- Ratio -----						
Less than									
5.0	17.4	2.10	1.58	0.60	0.40	0.35	0.67	0.21	5.19
5.0-9.9	49.7	1.68	1.34	.52	.48	.50	.94	.26	3.05
10.0-14.9	21.3	1.38	1.22	.47	.53	.68	1.13	.32	2.74
15.0-24.9	7.1	1.38	1.30	.49	.51	.65	1.02	.32	2.33
25.0 or more	4.5	1.24	1.20	.40	.60	.71	1.52	.28	2.35
All associations	100.0	1.54	1.29	.49	.51	.58	1.05	.28	2.91

Table 21—Selected operating statement relationships, by net savings, 1983

Net savings (loss) ¹	Distribution of associations	Gross margins Total sales	Net savings ¹ Total sales	Labor expense Total expenses	Net savings ¹ Equity	Net savings ¹ Total assets
Thousand dollars		----- Percent -----				
(500 or more)	4.5	5.37	(2.73)	34.2	(24.28)	(8.47)
(499-0)	6.4	6.37	(.54)	40.9	(3.74)	(1.50)
1-249	29.7	5.81	.62	41.3	4.28	1.96
250-499	22.6	5.57	1.65	41.0	9.88	4.99
500-749	19.4	6.37	2.50	40.4	13.51	7.23
750-999	7.1	6.10	2.28	38.9	13.75	6.13
1,000 or more	10.3	7.91	3.66	39.8	17.40	9.56
All associations	100.0	6.29	1.59	40.0	9.49	4.63

1-Savings before income taxes and allocations.

high of 60 percent (table 20). Management should also compute and evaluate certain related ratios, like the amount of debt to the amount of money the members have in the cooperative and the dollar value of fixed assets that the debt and member equity support.

The *liabilities/net worth (equity)* ratio indicates the amount of money the members owe creditors in relation to the amount of money invested by members. If long-term liabilities are a major part of total liabilities, the ratio may be greater because management has a longer timespan during which to solve any financial problems.

The *net savings/equity* ratio is most commonly used to measure return on investment. For all associations, net savings as a percent of equity ranged from a negative 24.28 to a high of 17.40, and averaged 9.49 percent (table 21).

The *debt/equity* ratio shows the amount of short- and long-term debt capital the cooperative had in relation to the amount of members' money in the cooperative.

HOW DOES YOUR ASSOCIATION COMPARE?

Substantial change has taken place in the financial structure of grain cooperatives since the upsurge in grain sales in the late 1970's. This is the result of operational changes by cooperatives in response to changes occurring in exports, production, transportation, farm programs, financial markets, and the world economic situation in general.

Size Criteria

Recognizing that the adjustments made by grain associations result in considerable variation in their physical and financial characteristics, four sets of tables were developed based on four size criteria—grain storage capacity, total sales, total assets, and net savings (appendix tables 1-24). With this information, it can readily be determined how an association compares with others having similar operations in the grain-producing areas of the United States.

Type of Grains Handled

Most cooperative associations in this study could be meaningfully grouped on the basis of grains handled—corn-soybean, wheat-sorghum, and wheat-barley. The corn-soybean cooperatives serve primarily farmers located in the Corn Belt, the wheat-sorghum cooperatives serve largely Southern Plains farmers, and the wheat-barley cooperatives serve Pacific Northwest producers.

Wheat-barley associations averaged 12 locations per association and 7,552,196 bushels of grain marketed, with a turnover rate of 1.04 times. Grain sales by these associations was a much higher proportion of total sales (90.3 percent) than for their two counterparts (table 22).

Wheat-sorghum associations were the largest in terms of assets, with total assets of \$11,793,300. These associations had 34.1 percent of their balance sheet in fixed assets,

Table 22—Grain storage capacity, marketed, and sales, by type of cooperative association, 1983

Type of association	Elevator storage capacity		Locations per association	Grain marketed per association	Turn-over rate	Proportion grain of total sales
	Per association	Per location				
	----- Bushels -----		Number	Bushels	Times	Percent
Corn-Soybean	3,555,391	1,048,008	3.4	5,828,276	1.64	76.5
Wheat-Sorghum	4,375,537	1,075,952	4.1	4,817,412	1.10	65.8
Wheat-Barley	7,265,857	605,488	12.0	7,552,196	1.04	90.3
All associations	3,965,919	947,176	4.2	6,089,683	1.54	77.6

Table 23—Balance sheet, by type of cooperative association, 1983

Type of association	Total assets	Current assets	Investments	Net fixed assets	Other assets	Total liabilities and member equity	Current liabilities	Long-term debt	Member equity
	Dollars	----- Percent -----				Dollars	----- Percent -----		
Corn-Soybean	8,789,052	45.1	18.5	36.0	0.4	8,789,052	34.8	16.7	48.5
Wheat-Sorghum	11,793,300	43.4	22.1	34.1	.4	11,793,300	32.1	11.4	56.5
Wheat-Barley	8,407,906	41.3	9.9	46.9	1.9	8,407,906	32.5	13.5	54.0
All associations	9,484,222	47.1	17.7	34.7	.5	9,484,222	36.5	14.7	48.8

compared with 36 percent for the corn-soybean and 46.9 percent for the wheat-barley associations (table 23). Member equity for the three groups ranged from 56.5 percent for the wheat-sorghum group to 48.5 percent for the corn-soybean associations.

Wheat-barley cooperatives were the largest in terms of total sales, averaging nearly \$30 million per association (table 24). Operating efficiency, measured here as gross income generated per dollar expended, was highest for these associations. In contrast, their margins on sales of 3.8 percent was considerably lower than those for the wheat-sorghum (9.1 percent) and corn-soybean (6.3 percent) cooperatives. However, the wheat-barley cooperatives derived 55 percent of their gross income from sources other than margins on sales,

largely from services provided. This compares with 45 and 35 percent, respectively, for the wheat-sorghum and corn-soybean associations.

Net savings for the three groups ranged from \$777,792 for the wheat-sorghum associations to \$327,740 for the corn-soybean associations. The wheat-sorghum and wheat-barley associations each had more than double the net savings of the corn-soybean associations (table 25). This was in part because of the significantly higher incidence of losses reported among the corn-soybean cooperatives. The wheat-barley cooperatives paid a cash patronage of 20 percent, followed by the wheat-sorghum with 29 percent and the corn-soybean associations with 45 percent.

Table 24—Income statement, by type of cooperative association, 1983

Item	Type of association			All associations
	Corn-soybean	Wheat-sorghum	Wheat-barley	
Dollars				
Total sales	26,688,235	24,445,424	29,949,288	27,575,664
Cost of sales	25,009,273	22,224,826	28,812,678	25,841,963
Margins on sales	1,678,962	2,220,598	1,136,610	1,733,701
Patronage refunds received	60,365	96,582	-14,999	57,506
Other income ¹	827,934	1,737,680	1,411,808	940,540
Gross income	2,567,261	4,054,860	2,533,419	2,731,747
Total expenses	2,239,521	3,277,068	1,788,546	2,292,540
Net savings ²	327,740	777,792	744,873	439,207
Gross income per dollar expense	1.15	1.24	1.42	1.19
Percent				
Proportion labor of total expenses	39.2	43.9	39.2	40.0

1-Includes other operating income, interest received (paid), rent, sales of assets gains/losses, etc.

2-Savings before income taxes and allocations.

Table 25—Net savings allocations, by type of cooperative association, 1983

Type of association	Net savings ¹	Distribution of net savings				Unallo- cated reserves
		Patronage			Other ²	
		Paid in cash	Retained	Total		
	<i>Dollars</i>	<i>Percent</i>				
Corn-Soybean	327,740	45	55	55.2	10.5	34.3
Wheat-Sorghum	777,792	29	71	79.8	1.5	18.7
Wheat-Barley	744,873	20	80	65.0	12.4	22.6
All associations	439,207	39	61	57.6	7.5	34.9

1-Savings before income taxes and allocations.

2-Includes dividends/interest on equity capital, an educational provision, and Federal and State income taxes.

Appendix Tables

Appendix table 1—Grain storage capacity, marketed, and sales, by grain storage capacity, 1983

Storage capacity	Distribution of associations	Elevator storage capacity		Locations per association	Grain marketed per association	Turn-over rate	Proportion grain of total sales
		Per association	Per location				
<i>Million bushels</i>	<i>Percent</i>	<i>----- Bushels -----</i>		<i>Number</i>	<i>Bushels</i>	<i>Times</i>	<i>Percent</i>
Less than							
1.5	16.8	1,025,863	467,938	2.2	4,091,846	3.99	75.6
1.5-2.4	18.7	2,000,876	644,727	3.1	4,725,172	2.36	72.7
2.5-3.4	23.2	2,879,465	917,352	3.1	4,830,279	1.68	75.5
3.5-4.4	16.1	3,902,130	903,271	4.3	6,129,395	1.57	81.7
4.5-6.4	11.6	5,493,224	1,136,529	4.8	7,172,071	1.31	75.2
6.5-9.4	7.1	7,590,331	1,043,671	7.3	10,444,363	1.38	79.2
9.5 or more	6.5	14,643,400	1,284,509	11.4	12,937,273	.88	85.7
All associations	100.0	3,965,919	947,176	4.2	6,089,683	1.54	77.6

Appendix table 2—Balance sheet, by grain storage capacity, 1983

Storage capacity	Distribution of associations	Total assets	Current assets	Investments	Net fixed assets	Other assets	Total liabilities and member equity	Current liabilities	Long-term debt	Member equity
<i>Million bushels</i>	<i>Percent</i>	<i>Dollars</i>	<i>----- Percent -----</i>			<i>Dollars</i>	<i>----- Percent -----</i>			
Less than										
1.5	16.8	5,491,122	50.6	21.4	27.7	0.3	5,491,122	34.1	8.7	57.2
1.5-2.4	18.7	7,094,050	51.4	19.3	28.9	.4	7,094,050	37.2	12.0	50.8
2.5-3.4	23.2	7,609,169	45.7	20.5	33.4	.4	7,609,169	38.4	16.8	44.8
3.5-4.4	16.1	8,342,436	45.4	17.4	36.6	.6	8,342,436	33.4	15.5	51.1
4.5-6.4	11.6	13,933,128	47.5	15.4	36.3	.8	13,933,128	39.7	13.0	47.3
6.5-9.4	7.1	17,016,367	50.6	16.2	33.0	.2	17,016,367	37.8	12.4	49.8
9.5 or more	6.5	20,109,041	40.6	14.0	44.9	.5	20,109,041	33.1	22.0	44.9
All associations	100.0	9,484,222	47.1	17.7	34.7	.5	9,484,222	36.5	14.7	48.8

Appendix table 3—Income statement, by grain storage capacity, 1983

Storage capacity	Distribution of associations	Total sales	Cost of sales	Margins on sales	Patronage refunds received	Other income ¹	Gross income	Total expenses	Net savings ²	Gross income per dollar expense	Proportion labor of total expenses
<i>Million bushels</i>	<i>Percent</i>	<i>----- Dollars -----</i>									<i>Percent</i>
Less than											
1.5	18.8	20,188,178	18,926,717	1,261,461	38,322	415,041	1,714,824	1,424,229	290,595	1.20	44.1
1.5-2.4	18.7	22,623,265	21,103,043	1,520,222	45,053	672,973	2,238,248	2,018,629	219,619	1.11	42.9
2.5-3.4	23.2	22,650,098	21,296,343	1,353,753	58,262	656,720	2,068,735	1,912,414	156,321	1.08	38.3
3.5-4.4	16.1	25,481,220	24,174,993	1,306,227	37,695	1,013,898	2,357,820	1,936,603	421,217	1.22	40.4
4.5-8.4	11.6	32,107,318	29,853,698	2,253,620	74,521	1,396,680	3,724,821	2,921,499	803,322	1.27	41.6
8.5-9.4	7.1	51,447,214	47,805,583	3,641,631	95,808	1,545,492	5,282,931	4,089,399	1,193,532	1.29	38.9
9.5 or more	6.5	49,697,554	46,715,020	2,982,534	117,547	2,434,637	5,534,718	4,494,116	1,040,602	1.23	34.5
All associations	100.0	27,575,664	25,841,963	1,733,701	57,506	940,540	2,731,747	2,292,540	439,207	1.19	40.0

1-Includes other operating income, interest received (paid), rent, sales of assets gains/losses, etc.

2-Savings before income taxes and allocations.

Appendix table 4—Net savings allocations, by grain storage capacity, 1983

Storage capacity	Distribution of associations	Net savings ¹	Distribution of net savings			Other ²	Unallocated reserves
			Patronage		Total		
			Paid in cash	Retained			
<i>Million bushels</i>	<i>Percent</i>	<i>Dollars</i>	<i>----- Percent -----</i>				
Less than							
1.5	16.8	290,595	37	63	43.7	8.6	47.7
1.5-2.4	18.7	219,619	35	65	50.7	10.8	38.5
2.5-3.4	23.2	156,321	35	65	80.3	19.7	—
3.5-4.4	16.1	421,217	42	58	57.2	7.9	34.9
4.5-6.4	11.6	803,322	52	48	51.6	3.3	45.1
6.5-9.4	7.1	1,193,532	42	58	55.6	3.2	41.2
9.5 or more	6.5	1,040,602	23	77	68.1	8.6	23.3
All associations	100.0	439,207	39	61	57.6	7.5	34.9

1-Savings before income taxes and allocations.

2-Includes dividends/interest on equity capital, an educational provision, and Federal and State income taxes.

Appendix table 5—Selected balance sheet ratios, by grain storage capacity, 1983

Storage capacity	Distribution of associations	Grain turnover rate	Current ratio	Equity Total assets	Total liabilities Total assets	Debt Equity	Total liabilities Equity	Debt Assets	Total sales Total assets
<i>Million bushels</i>	<i>Percent</i>	<i>Times</i>	<i>Ratio</i>						
Less than									
1.5	16.8	3.99	1.49	0.57	0.43	0.31	0.75	0.18	3.68
1.5-2.4	18.7	2.36	1.38	.51	.49	.54	.97	.27	3.19
2.5-3.4	23.2	1.68	1.19	.45	.55	.70	1.23	.31	2.98
3.5-4.4	16.1	1.57	1.36	.51	.49	.57	.96	.29	3.05
4.5-6.4	11.6	1.31	1.20	.47	.53	.60	1.11	.29	2.30
6.5-9.4	7.1	1.38	1.34	.50	.50	.51	1.01	.25	3.02
9.5 or more	6.5	.88	1.22	.45	.55	.78	1.23	.35	2.47
All associations	100.0	1.54	1.29	.49	.51	.58	1.05	.28	2.91

Appendix table 6—Selected operating statement relationships, by grain storage capacity, 1983

Storage capacity	Distribution of associations	Gross margins Total sales	Net savings ¹ Total sales	Labor expense Total expenses	Net savings ¹ Equity	Net savings ¹ Total assets
<i>Million bushels</i>		<i>Percent</i>				
Less than						
1.5	16.8	6.25	1.44	44.1	9.25	5.29
1.5-2.4	18.7	6.72	.97	42.9	6.10	3.10
2.5-3.4	23.2	5.98	.69	38.3	4.59	2.05
3.5-4.4	16.1	5.13	1.65	40.4	9.88	5.05
4.5-6.4	11.6	7.02	2.50	41.6	12.19	5.77
6.5-9.4	7.1	7.08	2.32	38.9	14.08	7.01
9.5 or more	6.5	6.00	2.09	34.5	11.53	5.17
All associations	100.0	6.29	1.59	40.0	9.49	4.63

1-Savings before income taxes and allocations.

Appendix table 7—Grain storage capacity, marketed, and sales, by total sales, 1983

Total sales	Distribution of associations	Elevator storage capacity		Locations per association	Grain marketed per association	Turn-over rate	Proportion grain of total sales
		Per association	Per location				
<i>Million dollars</i>	<i>Percent</i>	<i>---- Bushels ----</i>		<i>Number</i>	<i>Bushels</i>	<i>Times</i>	<i>Percent</i>
15.0-17.4	16.1	2,116,876	778,263	2.7	3,476,274	1.64	73.9
17.5-22.4	36.1	2,717,558	869,619	3.1	4,268,357	1.57	76.1
22.5-27.4	16.8	3,459,989	957,018	3.6	5,538,412	1.60	77.8
27.5-32.4	9.7	4,582,110	916,422	5.0	6,258,239	1.37	76.7
32.5-37.4	6.5	5,457,200	1,331,024	4.1	7,546,129	1.38	75.9
37.5-49.9	5.8	5,085,012	762,752	6.7	9,069,990	1.78	72.8
50.0 or more	9.0	10,755,992	1,107,234	9.7	15,928,753	1.48	84.1
All associations	100.0	3,965,919	947,176	4.2	6,089,683	1.54	77.6

Appendix table 8—Balance sheet, by total sales, 1983

Total sales	Distribution of associations	Total assets	Current assets	Investments	Net fixed assets	Other assets	Total liabilities and member equity	Current liabilities	Long-term debt	Member equity
Million dollars	Percent	Dollars	----- Percent -----				Dollars	---- Percent ----		
15.0-17.4	16.1	5,860,449	44.8	20.6	34.3	0.3	5,860,449	31.8	11.7	56.5
17.5-22.4	36.1	6,612,893	45.7	19.4	34.3	.6	6,612,893	34.5	14.5	51.0
22.5-27.4	16.8	8,051,108	47.0	20.0	32.9	.1	8,051,108	35.3	13.8	50.9
27.5-32.4	9.7	11,089,258	49.4	15.5	34.0	1.1	11,089,258	43.1	14.2	42.7
32.5-37.4	6.5	11,391,046	40.8	17.2	41.7	.3	11,391,046	29.4	16.5	54.1
37.5-49.9	5.8	13,882,486	48.8	17.2	33.4	.6	13,882,486	33.3	13.0	53.7
50.0 or more	9.0	24,192,900	50.3	14.5	34.8	.4	24,192,900	41.9	17.0	41.1
All associations	100.0	9,484,222	47.1	17.7	34.7	.5	9,484,222	36.5	14.7	48.8

Appendix table 9—Income statement, by total sales, 1983

Total sales	Distribution of associations	Total sales	Cost of sales	Margins on sales	Patronage refunds received	Other income ¹	Gross income	Total expenses	Net savings ²	Gross income per dollar expense	Proportion labor of total expenses
<i>Million dollars</i>	<i>Percent</i>	<i>-----Dollars-----</i>									<i>Percent</i>
15.0-17.4	18.1	18,103,977	15,085,598	1,018,379	35,470	612,977	1,666,826	1,408,032	258,794	1.18	42.3
17.5-22.4	38.1	19,449,183	18,238,476	1,210,707	44,209	717,250	1,972,166	1,697,870	274,296	1.16	41.5
22.5-27.4	18.8	25,001,577	23,510,740	1,490,837	54,044	889,021	2,433,902	2,102,915	330,987	1.16	41.1
27.5-32.4	9.7	30,288,522	28,113,979	2,154,543	47,937	1,069,180	3,271,660	2,808,746	462,914	1.16	38.4
32.5-37.4	8.5	34,188,814	31,821,499	2,367,315	66,816	996,617	3,430,748	2,512,070	918,678	1.37	38.6
37.5-49.9	5.8	44,377,842	41,294,401	3,083,241	84,111	986,310	4,153,662	3,391,412	762,250	1.22	44.1
50.0 or more	9.0	88,937,032	83,154,003	3,783,029	142,973	2,307,004	6,233,006	5,186,558	1,046,448	1.20	35.9
All associations	100.0	27,575,884	25,841,963	1,733,701	57,506	940,540	2,731,747	2,292,540	439,207	1.19	40.0

1-Includes other operating income, interest received (paid), rent, sales of assets gains/losses, etc.

2-Savings before income taxes and allocations.

Appendix table 10—Net savings allocations, by total sales, 1983

Total sales	Distribution of associations	Net savings ¹	Distribution of net savings				Unallo- cated reserves
			Patronage			Other ²	
			Paid in cash	Retained	Total		
<i>Million dollars</i>	<i>Percent</i>	<i>Dollars</i>	<i>-----Percent-----</i>				
15.0-17.4	16.1	258,794	32	68	53.2	4.9	41.9
17.5-22.4	36.1	274,296	38	62	68.0	11.4	20.6
22.5-27.4	16.8	330,987	46	54	51.8	8.4	39.8
27.5-32.4	9.7	462,914	30	70	58.0	7.4	34.6
32.5-37.4	6.5	918,678	66	34	42.1	8.3	49.6
37.5-49.9	5.8	762,250	32	68	63.7	6.5	29.8
50.0 or more	9.0	1,046,448	34	66	58.7	4.2	37.1
All associations	100.0	439,207	39	61	57.6	7.5	34.9

1-Savings before income taxes and allocations.

2-Includes dividends/interest on equity capital, an educational provision, and Federal and State income taxes.

Appendix table 11—Selected balance sheet ratios, by total sales, 1983

Total sales	Distribution of associations	Grain turnover rate	Current ratio	Equity Total assets	Total liabilities Total assets	Debt Equity	Total liabilities Equity	Debt Assets	Total sales Total assets
<i>Million dollars</i>	<i>Percent</i>	<i>Times</i>	<i>Ratio</i>						
15.0-17.4	16.1	1.64	1.41	0.57	0.43	0.38	0.77	0.22	2.75
17.5-22.4	36.1	1.57	1.32	.51	.49	.50	.96	.25	2.94
22.5-27.4	16.8	1.60	1.33	.51	.49	.62	.96	.31	3.11
27.5-32.4	9.7	1.37	1.14	.43	.57	.77	1.34	.33	2.73
32.5-37.4	6.5	1.38	1.39	.54	.46	.45	.85	.24	3.00
37.5-49.9	5.8	1.78	1.46	.54	.46	.59	.86	.32	3.20
50.0 or more	9.0	1.48	1.20	.41	.59	.74	1.43	.31	2.77
All associations	100.0	1.54	1.29	.49	.51	.58	1.05	.28	2.91

Appendix table 12—Selected operating statement relationships, by total sales, 1983

Total sales	Distribution of associations	Gross margins Total sales	Net savings ¹ Total sales	Labor expense Total expenses	Net savings ¹ Equity	Net savings ¹ Total assets
<i>Million dollars</i>	<i>Percent</i>					
15.0-17.4	16.1	6.32	1.61	42.3	7.81	4.42
17.5-22.4	36.1	6.22	1.41	41.5	8.13	4.15
22.5-27.4	16.8	5.96	1.32	41.1	8.08	4.11
27.5-32.4	9.7	7.12	1.53	38.4	9.78	4.17
32.5-37.4	6.5	6.92	2.69	38.6	14.92	8.06
37.5-49.9	5.8	6.95	1.72	44.1	10.22	5.49
50.0 or more	9.0	5.65	1.56	35.9	10.51	4.33
All associations	100.0	6.29	1.59	40.0	9.49	4.63

1-Savings before income taxes and allocations.

Appendix table 13—Grain storage capacity, marketed, and sales, by total assets, 1983

Total assets	Distribution of associations	Elevator storage capacity		Locations per association	Grain marketed per association	Turn-over rate	Proportion grain of total sales
		Per association	Per location				
<i>Million dollars</i>	<i>Percent</i>	<i>--- Bushels ---</i>		<i>Number</i>	<i>Bushels</i>	<i>Times</i>	<i>Percent</i>
Less than 5.0	17.4	2,357,333	816,000	2.9	4,944,024	2.10	85.2
5.0-9.9	49.7	2,742,485	824,888	3.3	4,613,763	1.68	75.7
10.0-14.9	21.3	5,205,002	954,250	5.5	7,175,539	1.38	77.7
15.0-24.9	7.1	6,251,282	1,074,439	5.8	8,652,984	1.38	67.9
25.0 or more	4.5	14,195,571	1,399,563	10.1	17,596,695	1.24	85.0
All associations	100.0	3,965,919	947,176	4.2	6,089,683	1.54	77.6

Appendix table 14—Balance sheet, by total assets, 1983

Total assets	Distribution of associations	Total assets	Current assets	Investments	Net fixed assets	Other assets	Total liabilities and member equity	Current liabilities	Long-term debt	Member equity
<i>Million dollars</i>	<i>Percent</i>	<i>Dollars</i>	<i>-----Percent-----</i>				<i>Dollars</i>	<i>---- Percent ----</i>		
Less than 5.0	17.4	3,789,366	39.9	20.3	39.4	0.4	3,789,366	25.3	15.0	59.7
5.0-9.9	49.7	7,132,133	47.4	19.4	32.9	.3	7,132,133	35.2	13.3	51.5
10.0-14.9	21.3	11,588,843	47.4	17.7	34.2	.7	11,588,843	38.7	14.4	46.9
15.0-24.9	7.1	19,208,388	45.4	14.9	39.3	.4	19,208,388	34.9	15.6	49.5
25.0 or more	4.5	32,120,448	51.2	15.0	33.4	.4	32,120,448	42.6	17.7	39.7
All associations	100.0	9,484,222	47.1	17.7	34.7	.5	9,484,222	36.5	14.7	48.8

Appendix table 15—Income statement, by total assets, 1983

Total assets	Distribution of associations	Total sales	Cost of sales	Margins on sales	Patronage refunds received	Other income ¹	Gross income	Total expenses	Net savings ²	Gross income per dollar expense	Proportion labor of total expenses
<i>Million dollars</i>	<i>Percent</i>	<i>-----Dollars-----</i>									<i>Percent</i>
Less than 5.0	17.4	19,878,892	18,791,373	885,319	23,358	564,381	1,473,058	1,244,165	228,893	1.18	40.7
5.0-9.9	49.7	21,782,873	20,405,759	1,358,914	52,486	759,624	2,169,004	1,865,819	303,185	1.16	41.3
10.0-14.9	21.3	31,729,301	29,888,851	1,860,850	53,834	1,191,488	3,105,752	2,608,795	496,957	1.19	39.6
15.0-24.9	7.1	44,686,811	40,578,881	4,107,730	111,751	1,523,873	5,743,154	4,836,129	1,107,025	1.24	40.8
25.0 or more	4.5	75,515,968	70,894,380	4,821,808	177,882	2,282,199	7,281,487	5,856,497	1,424,990	1.24	35.0
All associations	100.0	27,575,884	25,841,963	1,733,701	57,508	940,540	2,731,747	2,292,540	439,207	1.19	40.0

1-Includes other operating income, interest received (paid), rent, sales of assets gains/losses, etc.

2-Savings before income taxes and allocations.

Appendix table 16—Net savings allocations, by total assets, 1983

Total assets	Distribution of associations	Net savings ¹	Distribution of net savings				Unallocated reserves
			Paid in cash	Patronage Retained	Total	Other ²	
<i>Million dollars</i>	<i>Percent</i>	<i>Dollars</i>	<i>Percent</i>				
Less than 5.0	17.4	228,893	52	48	53.7	16.7	29.6
5.0-9.9	49.7	303,185	34	66	61.6	8.7	29.7
10.0-14.9	21.3	496,957	37	63	50.9	8.1	41.0
15.0-24.9	7.1	1,107,025	42	58	61.9	3.3	34.8
25.0 or more	4.5	1,424,990	41	59	56.3	3.2	40.5
All associations	100.0	439,207	39	61	57.6	7.5	34.9

1-Savings before income taxes and allocations.

2-Includes dividends/interest on equity capital, an educational provision, and Federal and State income taxes.

Appendix table 17—Selected balance sheet ratios, by total assets, 1983

Total assets	Distribution of associations	Grain turnover rate	Current ratio	Equity	Total liabilities	Debt	Total liabilities	Debt	Total sales
				Total assets	Total assets	Equity	Equity	Assets	Total assets
<i>Million dollars</i>	<i>Percent</i>	<i>Times</i>	<i>Ratio</i>						
Less than 5.0	17.4	2.10	1.58	0.60	0.40	0.35	0.67	0.21	5.19
5.0-9.9	49.7	1.68	1.34	.52	.48	.50	.94	.26	3.05
10.0-14.9	21.3	1.38	1.22	.47	.53	.68	1.13	.32	2.74
15.0-24.9	7.1	1.38	1.30	.49	.51	.65	1.02	.32	2.33
25.0 or more	4.5	1.24	1.20	.40	.60	.71	1.52	.28	2.35
All associations	100.0	1.54	1.29	.49	.51	.58	1.05	.28	2.91

Appendix table 18—Selected operating statement relationships, by total assets, 1983

Total assets	Distribution of associations	Gross margins	Net savings ¹	Labor expense	Net savings ¹	Net savings ¹
		Total sales	Total sales	Total expenses	Equity	Total assets
<i>Million dollars</i>		<i>Percent</i>				
Less than 5.0	17.4	4.50	1.16	40.7	10.11	6.04
5.0-9.9	49.7	6.24	1.39	41.3	8.25	4.25
10.0-14.9	21.3	5.86	1.57	39.6	9.14	4.29
15.0-24.9	7.1	9.19	2.48	40.8	11.65	5.76
25.0 or more	4.5	6.38	1.89	35.0	11.17	4.44
All associations	100.0	6.29	1.59	40.0	9.49	4.63

1-Savings before income taxes and allocations.

Appendix table 19—Grain storage capacity, marketed, and sales, by net savings, 1983

Net savings (loss)	Distribution of associations	Elevator storage capacity		Locations per association	Grain mar- keted per association	Turn- over rate	Proportion grain of total sales
		Per association	Per location				
<i>Thousand dollars</i>	<i>Percent</i>	<i>--- Bushels ---</i>		<i>Number</i>	<i>BusheIs</i>	<i>Times</i>	<i>Percent</i>
(500 or more)	4.5	5,315,571	1,550,375	3.4	7,972,962	1.50	76.2
(499-0)	6.4	2,576,287	572,508	4.5	4,746,842	1.84	68.9
1-249	29.7	2,443,814	729,970	3.3	4,869,337	1.99	75.8
250-499	22.6	2,865,356	808,770	3.5	5,141,171	1.79	77.7
500-749	19.4	4,068,265	1,034,305	3.9	5,785,109	1.42	79.4
750-999	7.1	6,362,818	1,044,642	6.1	9,092,847	1.43	84.8
1,000 or more	10.3	9,187,738	1,256,443	7.3	10,194,792	1.11	77.6
All associations	100.0	3,965,919	947,176	4.2	6,089,683	1.54	77.6

Appendix table 20—Balance sheet, by net savings, 1983

Net savings (loss)	Distribution of associations	Total assets	Current assets	Invest- ments	Net fixed assets	Other assets	Total liab- ilities and member equity	Current liabil- ities	Long- term debt	Member equity
<i>Thousand dollars</i>	<i>Percent</i>	<i>Dollars</i>	<i>-----Percent-----</i>				<i>Dollars</i>	<i>- - - Percent - - -</i>		
(500 or more)	4.5	11,666,639	40.9	22.6	36.1	0.4	11,666,639	37.6	27.5	34.9
(499-0)	6.4	9,038,177	48.9	23.4	27.2	.5	9,038,177	45.2	14.7	40.1
1-249	29.7	7,044,093	47.0	20.1	32.6	.3	7,044,093	39.0	15.3	45.7
250-499	22.6	7,506,228	48.4	17.1	33.6	.9	7,506,228	36.2	13.3	50.5
500-749	19.4	8,644,671	45.5	17.4	36.4	.7	8,644,671	31.2	15.2	53.6
750-999	7.1	13,425,013	50.7	14.4	34.9	*	13,425,013	42.3	13.1	44.6
1,000 or more	10.3	19,015,287	47.1	14.4	38.1	.4	19,015,287	33.0	12.1	54.9
All associations	100.0	9,484,222	47.1	17.7	34.7	.5	9,484,222	36.5	14.7	48.8

*Less than 0.05 percent.

Appendix table 21—Income statement, by net savings, 1983

Net savings (loss)	Distribu- tion of associations	Total sales	Cost of sales	Margins on sales	Patronage refunds received	Other income ¹	Gross income	Total expenses	Net savings ²	Gross income per dollar expense	Proportion labor of total expenses
<i>Thousand dollars</i>	<i>Percent</i>	<i>Dollars</i>									<i>Percent</i>
(500 or more)	4.5	36,201,236	34,256,380	1,944,856	103,315	800,948	2,849,119	3,837,661	(988,542)	0.74	34.2
(499-0)	6.4	25,343,738	23,729,521	1,614,217	78,054	772,811	2,465,082	2,600,811	(135,729)	.95	40.9
1-249	29.7	22,410,107	21,108,432	1,301,675	57,511	644,026	2,003,212	1,865,250	137,962	1.07	41.3
250-499	22.6	22,731,995	21,466,598	1,265,397	39,156	770,327	2,074,880	1,700,215	374,665	1.22	41.0
500-749	19.4	24,969,222	23,377,987	1,591,235	59,961	1,026,321	2,677,517	2,052,294	625,223	1.30	40.4
750-999	7.1	36,096,607	33,894,147	2,202,460	47,462	1,153,749	3,403,671	2,580,587	823,084	1.32	38.9
1,000 or more	10.3	49,672,362	45,745,021	3,927,341	67,054	2,023,836	6,018,231	4,200,480	1,817,751	1.43	39.8
All associations	100.0	27,575,664	25,841,963	1,733,701	57,506	940,540	2,731,747	2,292,540	439,207	1.19	40.0

1-Includes other operating income, interest received (paid), rent, sales of assets gains/losses, etc.

2-Savings before income taxes and allocations.

Appendix table 22—Net savings allocations, by net savings, 1983

Net savings (loss)	Distribu- tion of associa- tions	Net savings ¹ (loss)	Distribution of net savings (losses)				Unallo- cated reserves
			Patronage			Other ²	
			Paid in cash	Retained	Total		
<i>Thousand dollars</i>	<i>Percent</i>	<i>Dollars</i>	<i>Percent</i>				
(500 or more)	4.5	(988,542)					100.0
(499-0)	6.4	(135,729)					100.0
1-249	29.7	137,962	45	55	24.8	18.6	56.6
250-499	22.6	374,665	37	63	45.2	8.9	45.9
500-749	19.4	625,223	40	60	51.9	6.8	41.3
750-999	7.1	823,084	32	68	62.1	3.5	34.4
1,000 or more	10.3	1,817,751	40	60	56.2	3.8	40.0
All associations	100.0	439,207	39	61	57.6	7.5	34.9

1-Savings before income taxes and allocations.

2-Includes dividends/interest on equity capital, an educational provision, and Federal and State income taxes.

Appendix table 23—Selected balance sheet ratios, by net savings, 1983

Net savings (loss)	Distribution of associations	Grain turnover rate	Current ratio	Equity Total assets	Total liabilities Total assets	Debt Equity	Total liabilities Equity	Debt Assets	Total sales Total assets
<i>Thousand dollars</i>	<i>Percent</i>	<i>Times</i>	<i>Ratio</i>						
(500 or more)	4.5	1.50	1.09	0.35	0.65	1.39	1.87	0.48	3.10
(499-0)	6.4	1.84	1.08	.40	.60	.89	1.49	.36	2.80
1-249	29.7	1.99	1.20	.46	.54	.72	1.19	.33	3.18
250-499	22.6	1.79	1.34	.51	.49	.56	.98	.28	3.03
500-749	19.4	1.42	1.46	.54	.46	.48	.87	.26	2.89
750-999	7.1	1.43	1.20	.45	.55	.49	1.24	.22	2.69
1,000 or more	10.3	1.11	1.43	.55	.45	.39	.82	.21	2.61
All associations	100.0	1.54	1.29	.49	.51	.58	1.05	.28	2.91

Appendix table 24—Selected operating statement relationships, by net savings, 1983

Net savings (loss)	Distribution of associations	Gross margins Total sales	Net savings ¹ Total sales	Labor expense Total expenses	Net savings ¹ Equity	Net savings ¹ Total assets
<i>Thousand dollars</i>	<i>Percent</i>					
(500 or more)	4.5	5.37	(2.73)	34.2	(24.28)	(8.47)
(499-0)	6.4	6.37	(.54)	40.9	(3.74)	(1.50)
1-249	29.7	5.81	.62	41.3	4.28	1.96
250-499	22.6	5.57	1.65	41.0	9.88	4.99
500-749	19.4	6.37	2.50	40.4	13.51	7.23
750-999	7.1	6.10	2.28	38.9	13.75	6.13
1,000 or more	10.3	7.91	3.66	39.8	17.40	9.56
All associations	100.0	6.29	1.59	40.0	9.49	4.63

1-Savings before income taxes and allocations.

**U.S. Department of Agriculture
Agricultural Cooperative Service**

Agricultural Cooperative Service (ACS) provides research, management, and educational assistance to cooperatives to strengthen the economic position of farmers and other rural residents. It works directly with cooperative leaders and Federal and State agencies to improve organization, leadership, and operation of cooperatives and to give guidance to further development.

The agency (1) helps farmers and other rural residents develop cooperatives to obtain supplies and services at lower cost and to get better prices for products they sell; (2) advises rural residents on developing existing resources through cooperative action to enhance rural living; (3) helps cooperatives improve services and operating efficiency; (4) informs members, directors, employees, and the public on how cooperatives work and benefit their members and their communities; and (5) encourages international cooperative programs.

ACS publishes research and educational materials and issues *Farmer Cooperatives* magazine. All programs and activities are conducted on a nondiscriminatory basis, without regard to race, creed, color, sex, or national origin.